DISTRIBUTION AND STATUS

OF THE HERPETOFAUNA

OF CENTRAL REGION

August 1989

Ontario

Ministry of
Natural
Resources

Lyn McLeod
Minister

DISTRIBUTION AND STATUS OF THE HERPETOFAUNA OF CENTRAL REGION, ONTARIO MINISTRY OF NATURAL RESOURCES

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Parks and Recreational Areas Section

Central Region, Richmond Hill

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For convenience, this report may be referred to as OFER SR8903. It is one of a number of Open File Ecological Reports comprised of reconnaissance surveys and inventories of ecological areas in Ontario.

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Reference copies of this report are available in the offices of Central Region, 10670 Yonge Street, Richmond Hill, Ontario L4C 3C9 (Tel. [416]883-3240), and the Natural Resources Library, 4th Floor, Whitney Block, Room 4540, 99 Wellesley Street West, Toronto, Ontario M7A 1W3. Copies have been sent to universities libraries in southern Ontario.

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* These species appear to be under-recorded in Central Region, either through lack of search in appropriate habitats, or through difficulties in viewing species with secretive habits.

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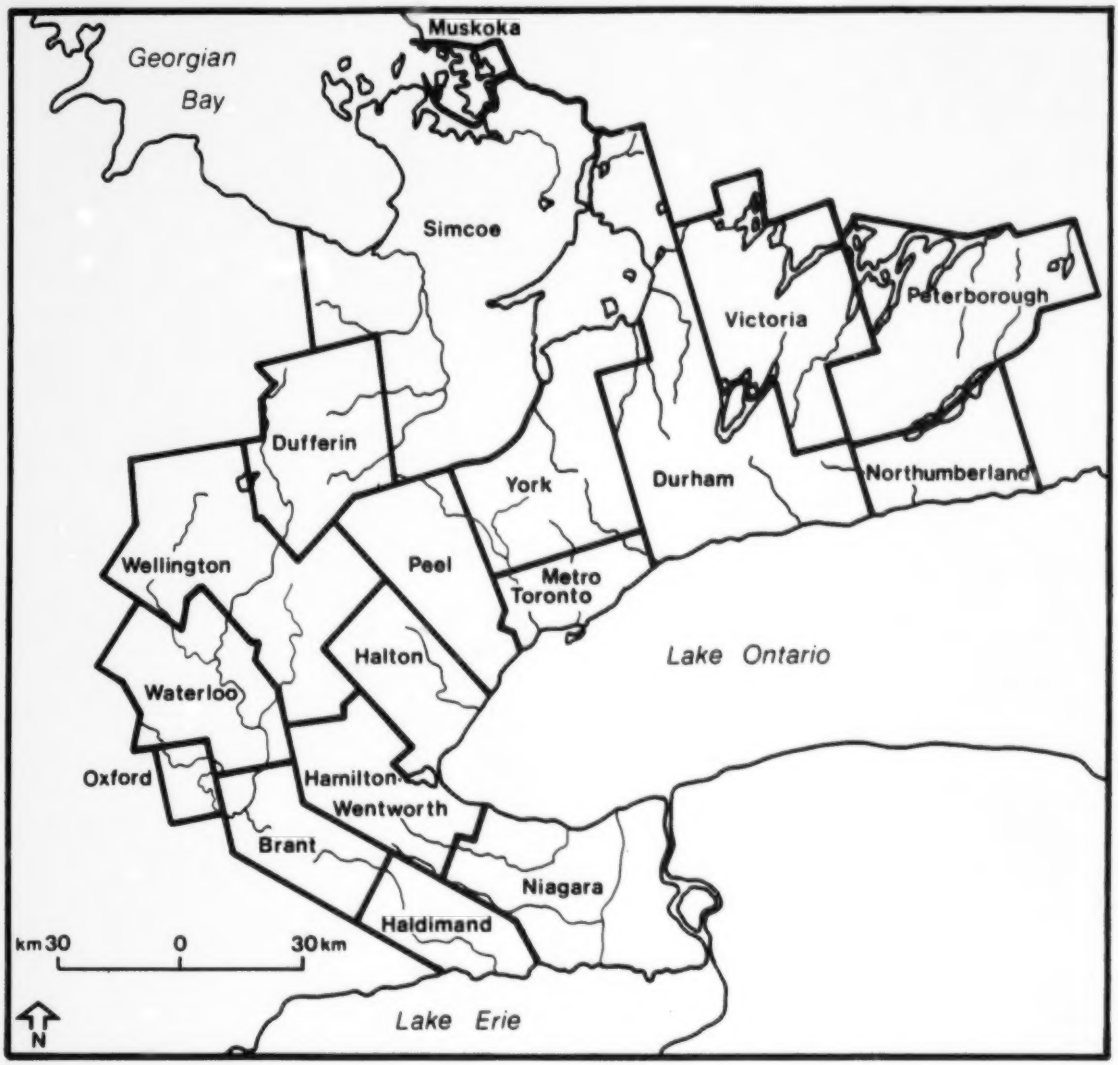


Fig. 1 Geographic areas referenced in the compilation of herpetofaunal data.

INTRODUCTION

Eighty-five species of amphibians and reptiles are known to occur in Canada. Of the fifty-one species known to occur in Ontario now or in the past, all but five occur in Central Region (Fig. 1). This checklist is intended to provide a ready reference to the herpetofauna of Central Region, especially in terms of current knowledge of the distribution and status of species.

Amphibians and reptiles are inconspicuous but important inhabitants of most natural habitats in Southern Ontario. They are easily overlooked, and often considered unimportant. Unlike mammals, they do not have physical structure or basic requirements similar to humans. Unlike birds, which often attract attention through coloration and vocalization, their habits are unknown to most people. Mammals and birds have been more economically important to humans whereas reptiles and amphibians are often regarded with distaste, perhaps through their lack of perceived usefulness or through their habitat preferences.

All native species are protected by law in Provincial Parks and, under regulation of the Game and Fish Act, it is illegal except by permit to hunt or possess, or sell or purchase, any turtle (except Snapping and Box Turtle) or Queen Snake, Eastern Hognose Snake, Black Rat Snake, Fox Snake, Northern Water Snake, Timber Rattlesnake or Bullfrog. The Timber Rattlesnake, extirpated from Ontario, is the one species in Central Region regulated under the Endangered Species Act.

Status of Species

These definitions are based in part on those used by the Committee on the Status of Endangered Wildlife in Canada (C.O.S.E.W.I.C.).

Widespread	Any species that occurs throughout Central Region.
Local	Any species that is restricted in its distribution in Central Region, either geographically or because of specialized habitat requirements.
Abundant	Any species that occurs in high numbers in Central Region.
Common	Any species that occurs in moderate numbers in Central Region.
Uncommon	Any species that occurs in low numbers to Central Region, or is seldom observed because of its secretive nature.

Rare	Any species that, because of its biological characteristics or because it occurs at the fringe of its range exists in small numbers or in very restricted areas in Central Region. These species may be threatened with extirpation in the Region.
Extirpated	Any species no longer existing in Central Region but existing elsewhere.
Introduced	A non-native species which was artificially brought into Central Region.

The following checklist is somewhat provisional with respect to the status of reptiles and amphibians in our natural ecosystems. Better and more exact determinations of the status of these species in Central Region should be generated through more thorough surveys and studies of many of these species.

ANNOTATED CHECKLIST

This checklist follows the nomenclature and order used by Cook (1984).

The first statement after the species name is the current status of the species in Central Region. A proposed status for Central Region was decided on the basis of the data assembled, including a review of records and a study of distribution maps from 1984-1987 prepared for the ongoing Ontario Herpetofaunal Summary.

For rare and uncommon species, a list is included of counties/regional municipalities where the species has been recently recorded (post-1950).

The data on which this checklist was based include material from:

- Herpetofaunal records of the Royal Ontario Museum
- Ontario Herpetofaunal Summary, 1984-87
- Assorted Environmentally Sensitive Areas studies
  Literature and manuals (see References)
- C.O.S.E.W.I.C. reports
- Personal communication with and reviews of draft manuscripts by field biologists (D. Coulson, J. Gould, D. Hawke, D. Sutherland, S. Varga)
- Comments and additional records by staff of O.M.N.R. Niagara and Huronia District Offices.

Michael Oldham is compiler of the Ontario Herpetofaunal Summary, and all new records on Central Region's reptiles and amphibians, especially of rare and uncommon species, should be directed to him at: P.O. Box 5463, 659 Exeter Road (Hwy. 135), London, Ontario M6A 4L6. The Hamilton Naturalists Club is also conducting a Herpetofaunal Atlas of the Hamilton area.

The Regional Ecologist, Central Region, M.N.R., would like to be advised of corrections or additions to this checklist, especially any additional records of rare and uncommon species (10670 Yonge St., Richmond Hill, ONTARIO L4C 3C9).

MUDPUPPY (*Necturus maculosus*)

UNCOMMON AND WIDESPREAD, but under-recorded

The Mudpuppy occurs in large permanent bodies of water, and is aquatic and secretive. It is difficult to find unless by deliberate search, and is overlooked and under-recorded. Mudpuppies are most frequently reported by fishermen who catch them by hook in late winter.

EASTERN NEWT (*Notophthalmus viridescens*)

COMMON AND WIDESPREAD, but under-recorded

The terrestrial red efts are much more frequently encountered, usually in woods, than the aquatic adult or larval stages. In general newts and salamanders are secretive creatures and therefore not likely to be found unless by deliberate search.

JEFFERSON SALAMANDER (*Ambystoma jeffersonianum*)

UNCOMMON AND WIDESPREAD, but under-recorded

The most confusing forms in the genus *Ambystoma* are found in the Jefferson Salamander complex. This complex is comprised of the Jefferson Salamander (*A. jeffersonianum*) and its associated hybrid form, the Silvery Salamander (*A. platineum*), along with the Blue-spotted Salamander (*A. laterale*) and its associated hybrid form, the Tremblay's Salamander (*A. tremblayi*). The latter two forms are more abundant in Central Region.

Recently, many new hybrids of this group have been found and it was also discovered that members of the Jefferson Salamander complex interbreed with other species such as the Smallmouth Salamander (*A. texanum*), although not in Central Region.

Species of the Jefferson Salamander complex so closely resemble one another that positive identification can only be made through the use of electrophoresis. Hence, for most field biologists, it is recommended that any forms of this complex should be classified as a single group, the Jefferson Salamander complex.

BLUE-SPOTTED SALAMANDER (*Ambystoma laterale*)

COMMON AND WIDESPREAD, but under-recorded

YELLOW-SPOTTED SALAMANDER (*Ambystoma maculatum*)
COMMON AND WIDESPREAD, but under-recorded

The Yellow-spotted Salamander, like other newts and salamanders, tends to be under-recorded due to its secretive nature. Most are recorded by chance but may be found through deliberate search in damp woodland under objects that have been lying on the ground for some time.

DUSKY SALAMANDER (*Desmognathus fuscus*) Map 1
EXTREMELY RARE AND LOCAL

Until 1989 there was only one report of this species in Ontario, "Opposite Buffalo, New York" (Bishop 1943).

In April 1989, J. Kamstra rediscovered Dusky Salamander in the Whirlpool portion of the Niagara Gorge ANSI, where later inventory confirmed less than 10 individuals in 2 very small seepage areas. The destruction of clear, cold small creeks in the Niagara region (the Dusky Salamander's required habitat) probably resulted in the loss of this species elsewhere in southern Ontario.

TWO-LINED SALAMANDER (*Euycea bislineata*) Map 2
RARE AND LOCAL, but under-recorded

In Ontario, the Two-lined Salamander is restricted to clear, clean streams and seepages, from the extreme eastern counties west along the edge of the Precambrian Shield to Georgian Bay (Oldham and Sutherland 1986). Two-lined Salamanders may be expected in Central Region on the Canadian Shield.
Records: Victoria County, Coboconk (Logier and Toner 1961).

SPRING SALAMANDER (*Gyrinophilus porphyriticus*)
EXTIRPATED

In Ontario, the only record is in Niagara in 1877 ("opposite Buffalo"), as larvae (Dunn 1926).

FOUR-TOED SALAMANDER (*Hemidactylium scutatum*) Map 3
UNCOMMON AND LOCAL, but under-recorded

The Four-toed Salamander is extremely inconspicuous, frequently going undetected in a known locality for many years despite repeated, diligent searching by those familiar with the habits of this species. The Four-toed Salamander is characteristically an inhabitant of sphagnum bogs, swamps and other wet areas.

Recent records: Hamilton-Wentworth, Niagara, Peel, Simcoe, Waterloo, Wellington.

EASTERN REDBACK SALAMANDER (***Plethodon cinereus***)
ABUNDANT AND WIDESPREAD

AMERICAN TOAD (***Bufo americanus***)
ABUNDANT AND WIDESPREAD

WOODHOUSE'S TOAD (***Bufo woodhousei***) Map 4
RARE AND LOCAL

More commonly referred to as Fowler's Toad, this species prefers open sandy habitats such as beaches. The artificial disturbance of these sandy shoreline areas appears to be the biggest threat to this species.
Recent records: Haldimand-Norfolk, Niagara

SPRING PEEPER (***Hyla crucifer***)
ABUNDANT AND WIDESPREAD

TETRAPLOID GRAY TREEFROG (***Hyla versicolor***)
ABUNDANT AND WIDESPREAD

STRIPED CHORUS FROG (***Pseudacris triseriata***)
ABUNDANT AND WIDESPREAD

WOOD FROG (***Rana sylvatica***)
ABUNDANT AND WIDESPREAD

NORTHERN LEOPARD FROG (***Rana pipiens***)
ABUNDANT AND WIDESPREAD

PICKEREL FROG (***Rana palustris***) Map 5
UNCOMMON AND WIDESPREAD

The Pickerel Frog, in relation to other true frogs, tends to have a slightly more restricted habitat. They prefer the clear, cool waters of spring-fed ponds, meadows, streams and backwaters. They appear to breed in ponds located near their summer foraging areas, and loss of these specific habitats may be a factor contributing to their decline in Central Region.
Recent records: Brant, Dufferin, Durham, Haldimand-Norfolk, Halton, Hamilton-Wentworth, Northumberland, Oxford, Peel, Peterborough, Simcoe, Victoria, Waterloo, Wellington, York

GREEN FROG (*Rana clamitans*)
ABUNDANT AND WIDESPREAD

MINK FROG (*Rana septentrionalis*) Map 6
UNCOMMON AND LOCAL, but under-recorded

The Mink Frog is restricted to wetlands, often bogs, in Central Region. It has been hypothesized that southern populations of this species may be relicts of previously more widespread populations of cooler postglacial periods. As the climate warmed, Mink Frog populations became more restricted to areas on the Canadian shield. This species is also rather inconspicuous.

Recent records: Dufferin, Durham, Hamilton-Wentworth, Northumberland, Peel, Peterborough, Simcoe, Victoria, Waterloo, Wellington, York

BULLFROG (*Rana catesbeiana*)
COMMON AND WIDESPREAD

COMMON SNAPPING TURTLE (*Chelydra serpentina*)
ABUNDANT AND WIDESPREAD

This species is commercially harvested throughout Central Region, particularly in the Peterborough area, the Kawartha Lakes (Rice Lake in particular), the Lindsay area (Brooks, pers. comm. 1987), and in Haldimand-Norfolk.

Even though this species is presently abundant, because of its large size, its long lifespan, and the extremely high mortality of hatchlings, concern should be raised over any unnatural causes of mortality. It is unlikely that Snapping Turtles will be able to sustain the present uncontrolled harvest pressure (Obbard 1985b).

STINKPOT (*Sternotherus odoratus*) Map 7
UNCOMMON AND LOCAL, but under-recorded

The Stinkpot generally occurs in shallow, clear water of lakes, ponds and rivers. It is a secretive and highly aquatic turtle rarely seen out of water except during nesting season.

Recent Records: Hamilton-Wentworth, Peterborough, Simcoe, York

PAINTED TURTLE (*Chrysemys picta*)
ABUNDANT AND WIDESPREAD

RED-EARED SLIDER (*Pseudemys scripta*) Map 8
RARE (introduced) AND LOCAL

This species was once the common "pet-store turtle". Thousands were sold in Ontario before their importation became illegal.

There are only two records for Central Region and they are the result of escaped or released captives. A single Red-eared slider was seen in the West Pond of Cootes Paradise in Hamilton on June 26 and July 8, 1984 (Oldham and Sutherland 1986). Another adult female was observed by David Galbraith at Lynde Shores Conservation Area, Whitby, in 1986. It was basking on a log for several hours in a pond-like section of Lynde Creek just south of the parking lot (Galbraith, pers. comm. 1987).

MAP TURTLE (*Graptemys geographica*) Map 9
UNCOMMON AND LOCAL

The Map Turtle is a turtle of larger lakes and rivers such as the Grand River, Georgian Bay, the Great Lakes and some of the larger Kawartha Lakes. It tends to be locally common where suitable habitat is available, such as along Georgian Bay, but such habitats are not common in Central Region.

Recent records: Brant, Durham, Haldimand-Norfolk, Halton, Hamilton-Wentworth, Muskoka, Peel, Peterborough, Simcoe, York

BLANDING'S TURTLE (*Emydoidea blandingi*)
UNCOMMON AND WIDESPREAD

The Blanding's Turtle is mainly aquatic and its habitat requirements are generally the same as the Midland Painted Turtle; i.e. lakes, marshes, and other wetlands. Theoretically, the Blanding's Turtle should be found in the same areas across Central Region as the Painted Turtle. It occurs consistently across the Region but in small numbers and at few localities.

WOOD TURTLE (*Clemmys insculpta*) Map 10
RARE AND LOCAL

The Wood Turtle is apparently restricted to areas with sandy or gravelly bedded rivers. Human activities have significantly altered and reduced this turtle's natural habitat. It spends much of its time on land, which may make it more conspicuous than its more aquatic relatives. Many of the records are historic, and some may represent escaped or discarded pets. Rare in Ontario (Obbard 1985a).

Recent records: Halton, Hamilton-Wentworth, Peel, Simcoe, York

SPOTTED TURTLE (*Clemmys guttata*) Map 11
RARE AND LOCAL

The Spotted Turtle inhabits shallow, quiet bodies of water, usually with a soft substrate and abundant aquatic vegetation. Loss of habitat would appear to be the main reason for the decline of this turtle. Other factors such as pollution, predation, over-collection, and road mortality also contribute to its decline.

Recent records: Dufferin, Durham, Hamilton-Wentworth, Niagara, Peterborough, Simcoe

EASTERN BOX TURTLE (*Terrapene carolina*) Map 12
RARE (probably introduced) AND LOCAL

There are two records of Eastern Box Turtle in Central Region, one from near Kitchener in Waterloo Region in 1985 (in a barn, Coulson, pers. comm. 1987), and one from a woodlot near Fort Erie in 1985 (Oldham 1988). The species may be native in Niagara District.

SPINY SOFTSHELL (*Trionyx spiniferus*) Map 13
RARE AND LOCAL, but under-recorded

The Eastern Spiny Softshell inhabits a wide variety of aquatic habitats in Southern Ontario, such as large, swift-flowing rivers, oxbows, lakes, impoundments and temporary or permanent ponds near rivers. A soft, sandy bottom with some aquatic vegetation is essential, and sandbars and mudflats are also important for basking and nesting sites (Campbell and Donaldson 1980).

Major limiting factors may be a loss of suitable habitat due to shoreline development, pollution and chemical contamination of some aquatic habitats, decrease in food supply and recent severe winters (ibid.).

Recent records: Durham, Halton, Hamilton-Wentworth, Niagara, Haldimand.

FIVE-LINED SKINK (*Eumeces fasciatus*) Map 14
RARE AND LOCAL

The natural distribution of the Five-lined Skink follows the southern edge of the Canadian Shield and along the sandy peninsulas of Lake Erie (e.g. Point Pelee, Cook 1984). This restricts the species in Central Region to areas where the Canadian Shield extends into areas such as Peterborough and Simcoe counties.

Recent records: Peterborough, Simcoe

COMMON GARTER SNAKE (*Thamnophis sirtalis*)
ABUNDANT AND WIDESPREAD

EASTERN RIBBON SNAKE (*Thamnophis sauritus*) Map 15
UNCOMMON AND WIDESPREAD, but under-recorded

The Northern Ribbon Snake occupies margins of permanent water, particularly swamps, ponds and streams.

Recent records: Brant, Haldimand-Norfolk, Halton, Hamilton-Wentworth, Muskoka, Niagara, Northumberland, Oxford, Victoria, Waterloo, Wellington, York

BUTLER'S GARTER SNAKE (*Thamnophis butleri*) Map 16
RARE AND LOCAL

The Butler's Garter Snake is chiefly a snake of open prairie-like areas and has a relatively discontinuous distribution. It has been hypothesized that the Butler's Garter Snakes of Ontario are actually relict populations from a hypsithermal (warmer, drier, prairie-like) era. The Luther Marsh population includes individuals intermediate between *T. butleri* and *T. brachystoma* (Short-headed Garter Snake), and others very similar to *T. brachystoma* (Coulson 1984).

Recent records: Dufferin, Wellington (all records are from Luther Marsh)

NORTHERN WATER SNAKE (*Nerodia sipedon*)
UNCOMMON AND WIDESPREAD, but under-recorded

The Northern Water Snake is a large and very aquatic snake. Usually most abundant in quiet waters, it is also found in swift flowing streams. Its aquatic habit and the minimal attention to appropriate habitat by surveyors may be the main factors contributing to a lack of records. Locally common in areas such as Wye and Tiny Marshes, quarries in the Lake St. John area and, even, on offshore islands of Georgian Bay, such as the Watcher Islands.

QUEEN SNAKE (*Regina septemvittata*) Map 17
RARE AND LOCAL

The Queen Snake occurs in small stony creeks and rivers but is not confined to these habitats. It feeds almost exclusively on soft-shelled crayfish (ones that have just shed) and this may be a limiting factor in its distribution. This, combined with a general decrease of water quality in the preferred habitats of the Queen Snake, may be the cause of a decline in this species.

Recent records: Brant, Waterloo

REDBELLY SNAKE (*Storeria occipitomaculata*)
UNCOMMON AND WIDESPREAD, but under-recorded

The preferred habitats of the Redbelly Snake, such as old fields and roadsides, may be undersearched.

BROWN SNAKE (*Storeria dekayi*)
COMMON AND WIDESPREAD, but under-recorded

The Brown Snake's small size, dull colour and secretive habits make it difficult to find even where it is known to be common.

SMOOTH GREEN SNAKE (*Opheodrys vernalis*)
UNCOMMON AND WIDESPREAD, but under-recorded

The Smooth Green Snake inhabits grassy clearings, meadows, and bushy areas where it is often moist. It can move very quickly and its coloration provides excellent camouflage.

RINGNECK SNAKE (*Diadophis punctatus*) Map 18
UNCOMMON AND WIDESPREAD, but under-recorded

The Northern Ringneck Snake is a secretive woodland snake in areas with an abundance of hiding places - stones, logs, bark slabs etc. This snake is nocturnal to some degree. Whether this snake is actually present in small numbers, or is simply difficult to find, cannot be determined unless systematic surveys are conducted.

Recent records: Brant, Haldimand, Halton, Hamilton-Wentworth, Muskoka, Niagara, Peel, Simcoe, Waterloo, York

EASTERN HOGNOSE SNAKE (*Heterodon platyrhinos*) Map 19
RARE AND LOCAL

The habitat of the Eastern Hognose Snake is largely restricted to areas with sandy substrates where it hunts for toads. It frequents sunny areas near roads and field edges where, unfortunately, there is usually human activity. Loss of habitat and persecution by humans contribute to the decline of this large, slow moving snake.

This snake is harmless and seldom bites, though it may strike with considerable energy with a closed mouth. Public education is necessary to change attitudes towards this snake.

Recent records: Muskoka, Oxford, Peterborough, Simcoe, Niagara, Northumberland

RAT SNAKE (*Elaphe obsoleta*) Map 20
RARE AND LOCAL

The Rat Snake is the largest snake in Canada. People intolerant of large snakes have nearly exterminated Rat Snakes in Canada (and also Central Region). Like other large snakes it has a habit of basking on sun-heated highways which often proves fatal.

Recent records: Haldimand-Norfolk, Hamilton-Wentworth

FOX SNAKE (*Elaphe vulpina*) Map 21
RARE AND LOCAL

The Eastern Fox Snake is locally common in a few areas but is considered very rare in Central Region as a whole.

The Eastern Fox Snake is known historically in Central Region only near Georgian Bay. Recent records from Niagara require additional documentation. It prefers open habitats such as fields and beaches near marshes. It is restricted to the marshes of large lakes such as the Great Lakes. Because of its conspicuous size it is persecuted. There is need to protect relevant shoreline habitats including beaches and marshes.

Recent records: Muskoka, Niagara, York (probably escaped)

MILK SNAKE (*Lampropeltis triangulum*)
UNCOMMON AND WIDESPREAD, but under-recorded

The Milk Snake is generally secretive and occurs in edge habitats and old fields, usually hiding under rotten logs or refuse. It can also inhabit barns where it is beneficial in controlling small rodent populations.

MASSASAUGA (*Sistrurus catenatus*) Map 22
RARE AND LOCAL

The Massasauga Rattlesnake is usually found near swamps, preferring wetlands in the spring and moving to higher ground in the summer where it is often noted in old fields rather than forested habitats.

The Massasauga is a medium-sized, docile snake. There are few cases of people being bitten by them, however, in Ontario. Like other poisonous snakes, it is subject to severe human persecution. Loss of habitat due to drainage and mechanized farming, and road fatalities (it frequently basks on paved roadways) have also probably contributed to its rapid decline. Survival of the Massasauga may depend on legal protection, site protection and public education.

Recent records: Muskoka, Niagara, Simcoe. Anecdotal records are numerous, and populations may still persist elsewhere.

TIMBER RATTLESNAKE (*Crotalus horridus*) Map 23

EXTIRPATED

In Canada, this rattlesnake occurred in southwestern Ontario in rocky wooded areas, feeding mainly on rodents. The last specimen of the Timber Rattlesnake was taken in Ontario from Niagara Glen in 1941. Since then, only unverified reports have been made (Cook 1984). This snake is large and poisonous, two reasons which cause great human hostility. Due to the colonial nature of the Timber Rattlesnake it was possible for humans to extirpate this species from Canada.

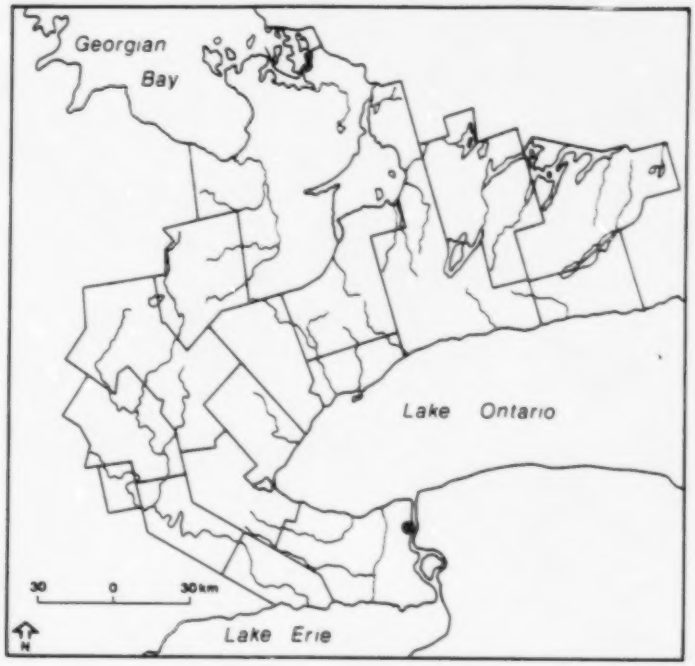
Distribution Maps of Selected Herpetofauna of Central Region

- ● Specimen Record (Royal Ontario Museum, National Museum, or University of Guelph) or Specimen Photograph (Ontario Herpetofaunal Summary, or R.O.M.), Post-1950
- ■ Other Record (Ontario Herpetofaunal Summary) or other Post-1950 Record
- ▲ Historical Record or Record of Unknown Date
- ? Doubtful Reports

Map 1. DUSKY SALAMANDER

Desmognathus fuscus

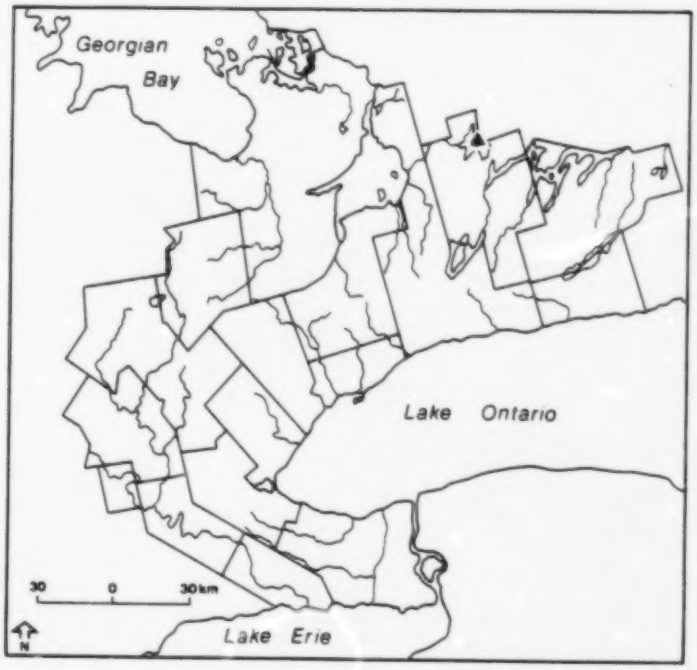
Extremely Rare and Local in Central Region



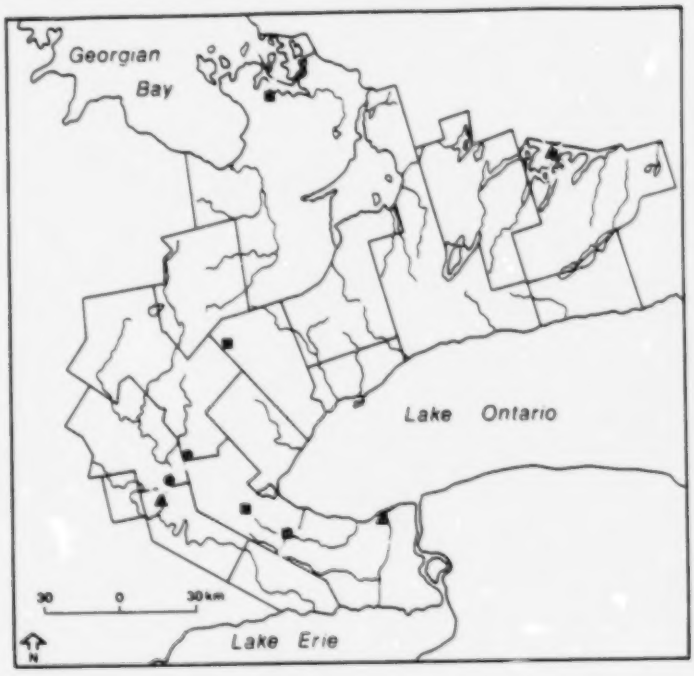
Map 2. TWO-LINED SALAMANDER

Eurycea bislineata

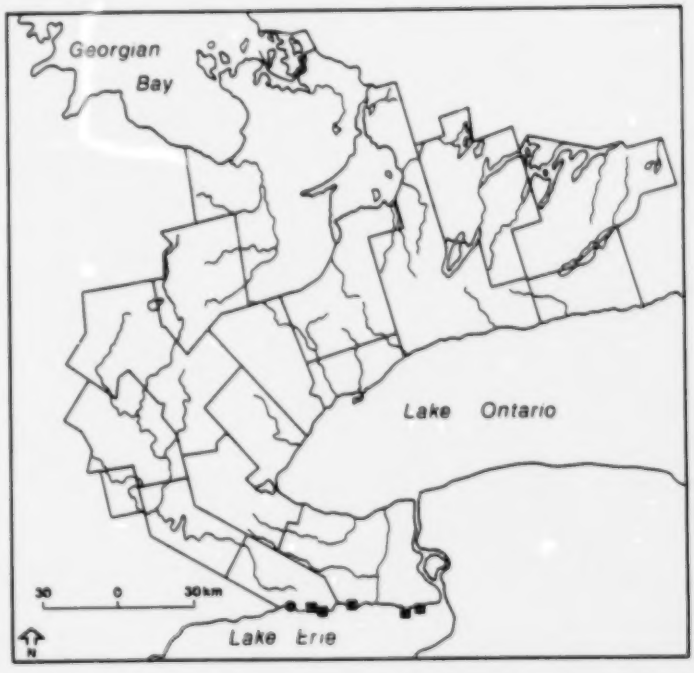
Rare and Local in Central Region



Map 3. FOUR-TOAD SALAMANDER
Hemidactylium scutatum
Uncommon and Local in Central Region



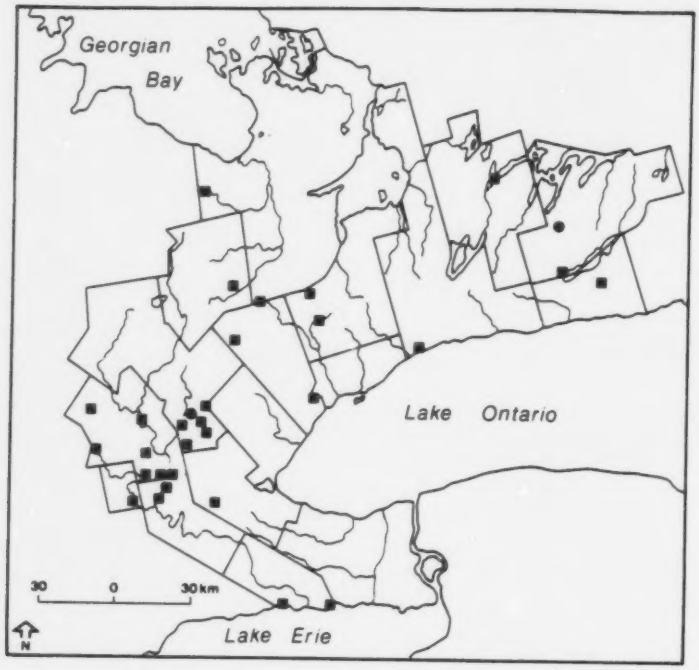
Map 4. WOODHOUSE'S TOAD
Bufo woodhousei
Rare and Local in Central Region



Map 5. PICKEREL FROG

Rana palustris

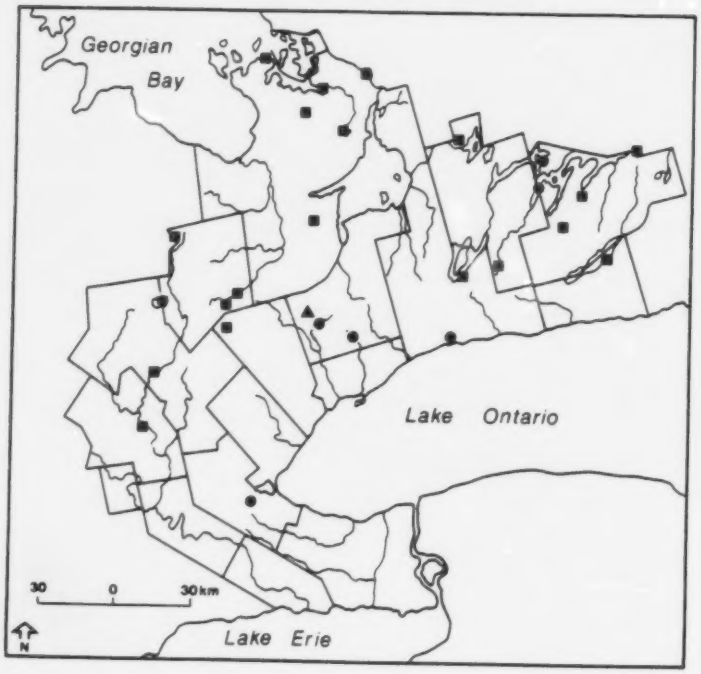
Uncommon and Widespread in Central Region



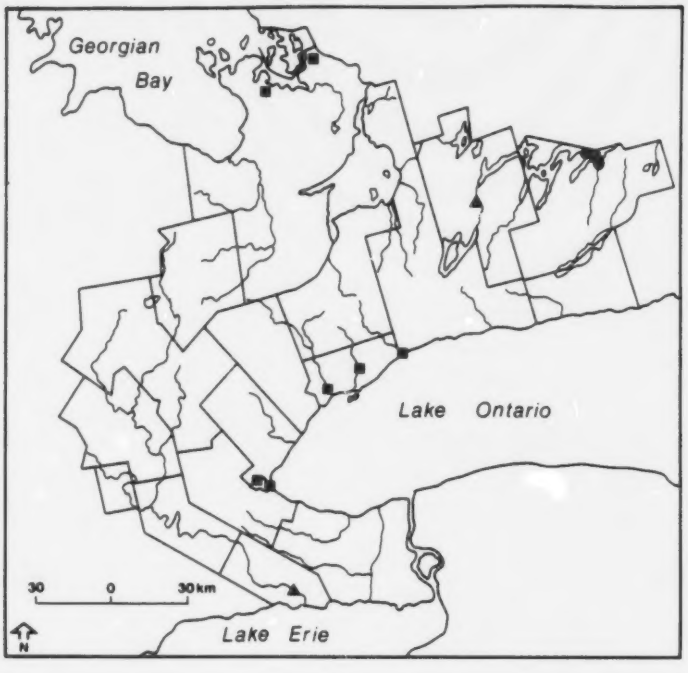
Map 6. MINK FROG

Rana septentrionalis

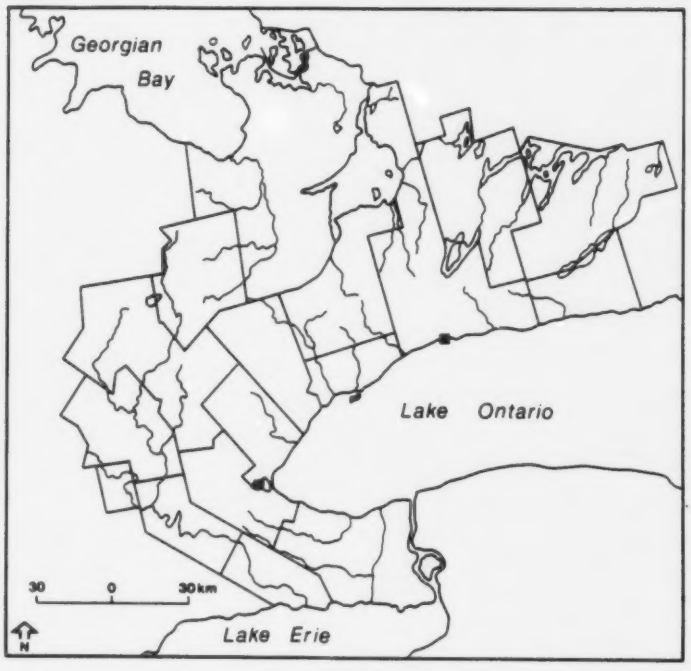
Uncommon and Local in Central Region



Map 7. STINKPOT
Sternotherus odoratus
Uncommon and Local in Central Region



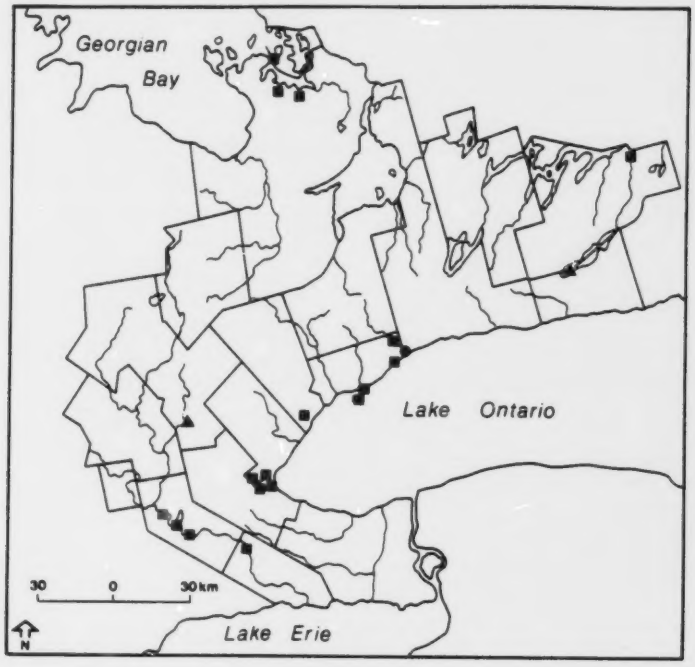
Map 8. RED-EARED SLIDER (introduced)
Pseudemys scripta
Rare (introduced) and Local in Central Region



Map 9. MAP TURTLE

Graptemys geographica

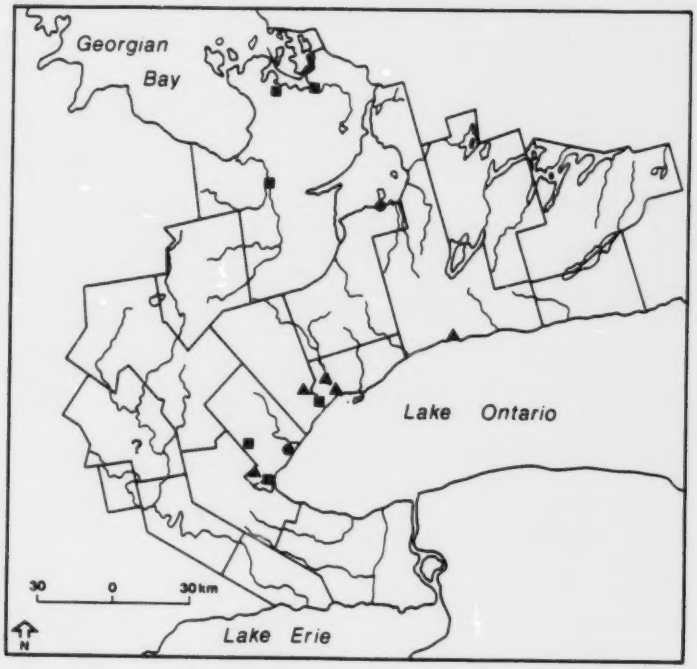
Uncommon and Local in Central Region



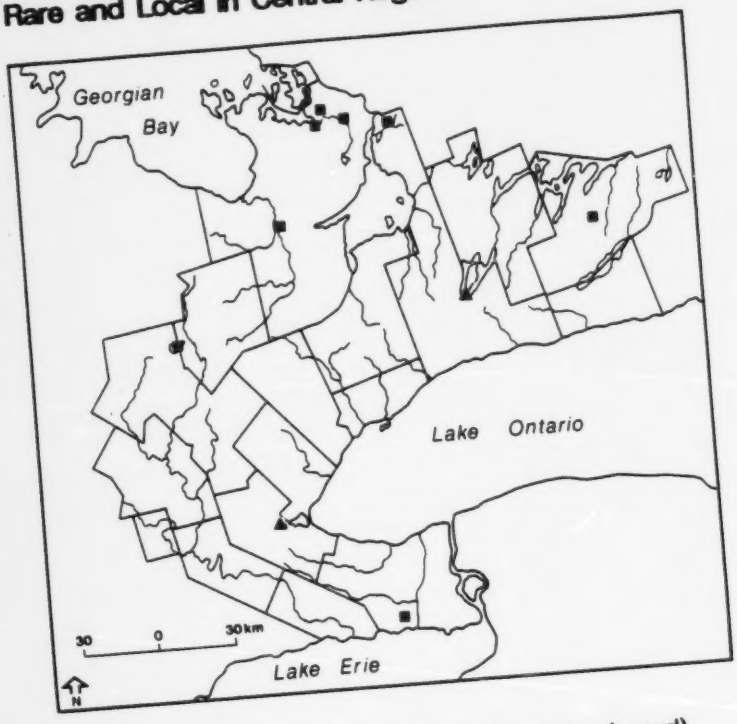
Map 10. WOOD TURTLE

Clemmys insculpta

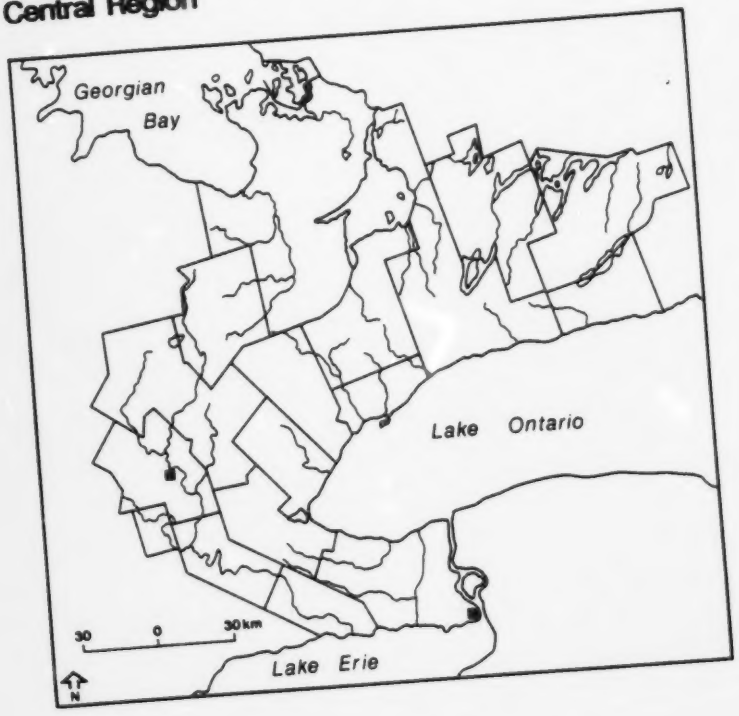
Rare and Local in Central Region



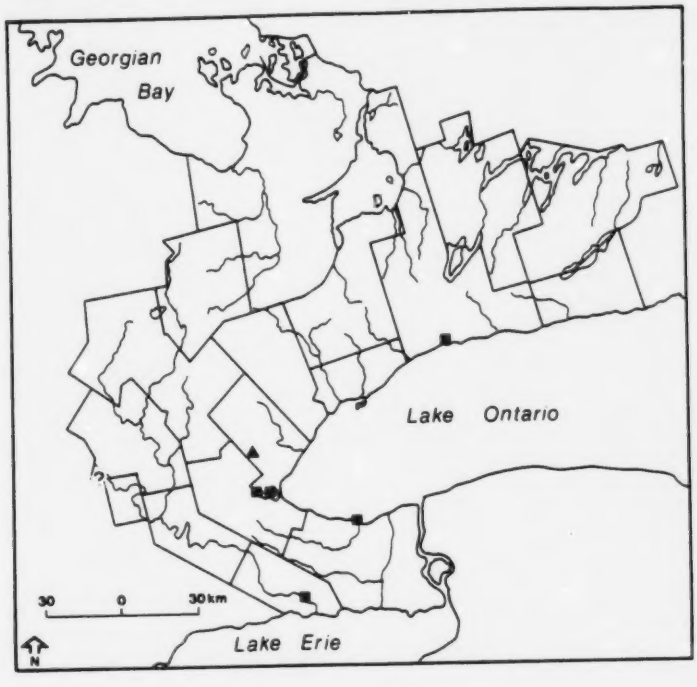
Map 11. SPOTTED TURTLE
Clemmys guttata
Rare and Local in Central Region



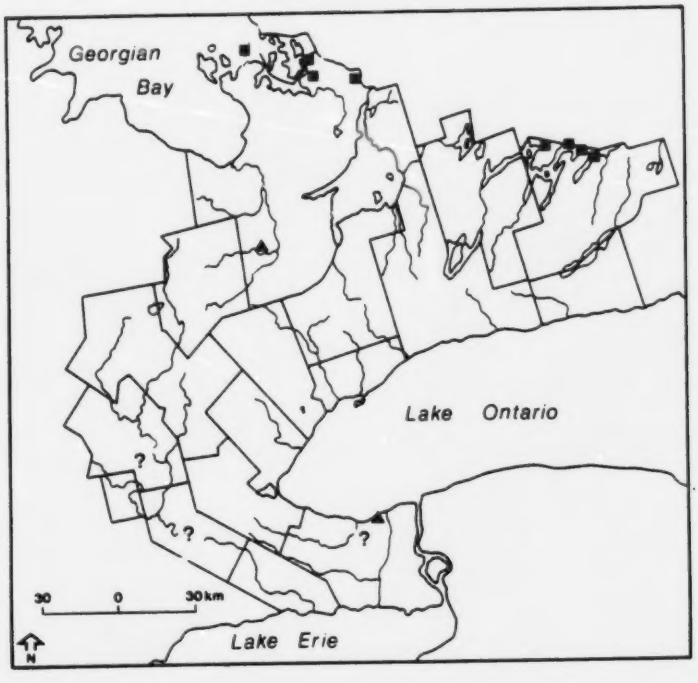
Map 12. EASTERN BOX TURTLE (Probably Introduced)
Terrapene carolina
Rare (probably introduced) and Local in Central Region



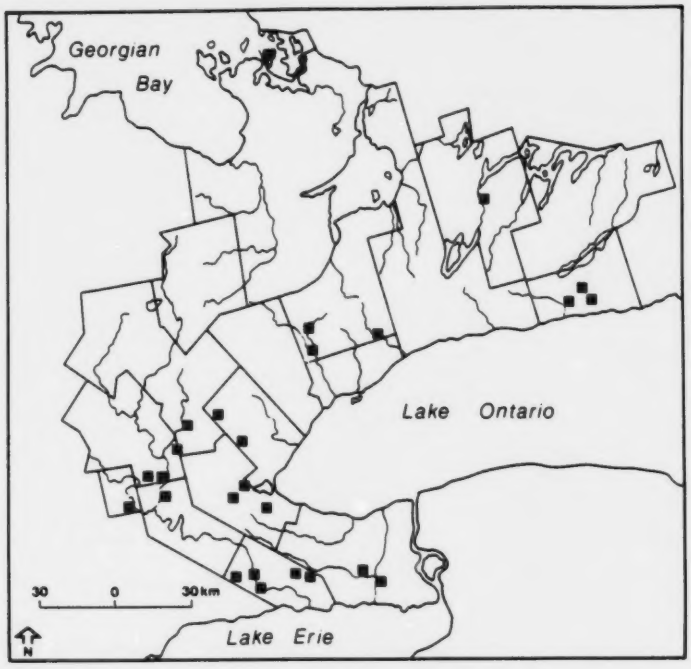
Map 13. SPINY SOFTSHELL
Trionyx spiniferus
Rare and Local in Central Region



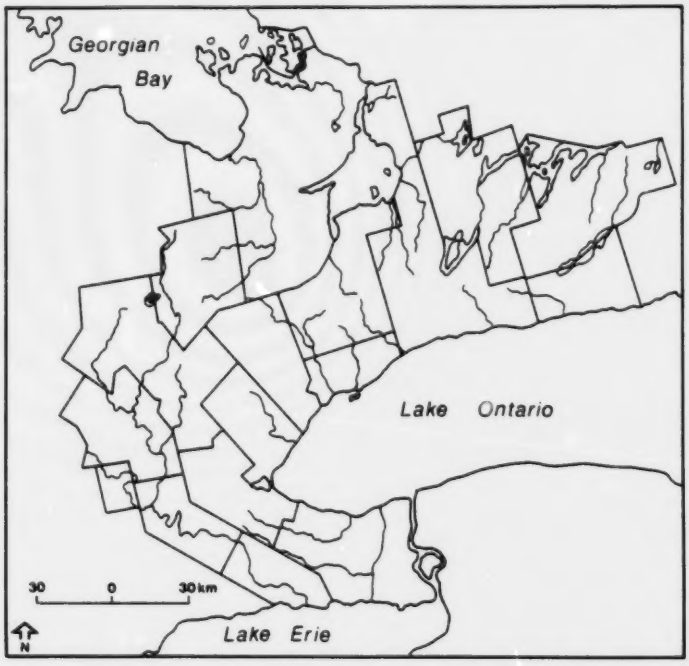
Map 14. FIVE-LINED SKINK
Eumeces fasciatus
Rare and Local in Central Region



Map 15. EASTERN RIBBON SNAKE
Thamnophis sauritus
Uncommon and Widespread in Central Region



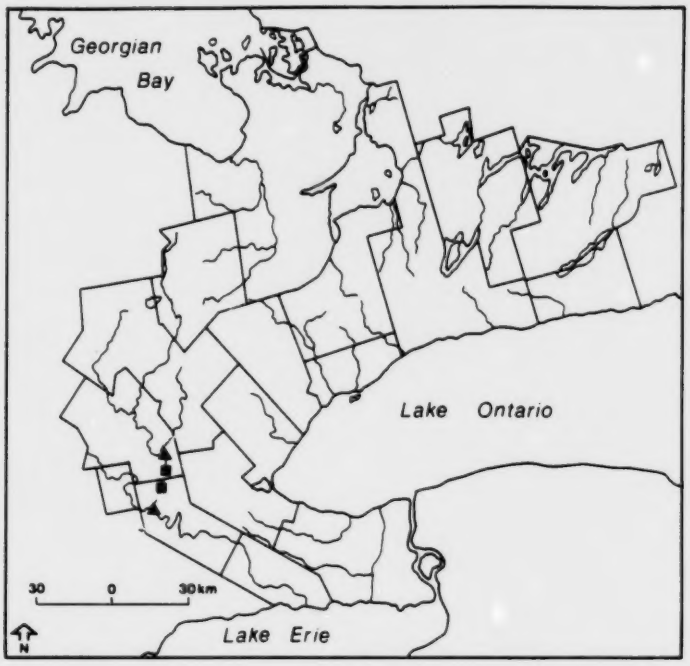
Map 16. BUTLER'S GARTER SNAKE
Thamnophis butleri
Rare and Local in Central Region



Map 17. QUEEN SNAKE

Regina septemvittata

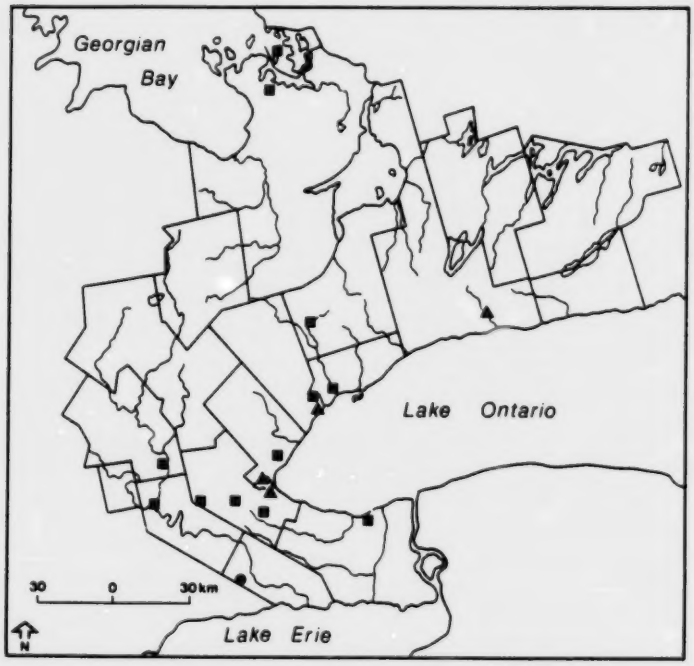
Rare and Local in Central Region



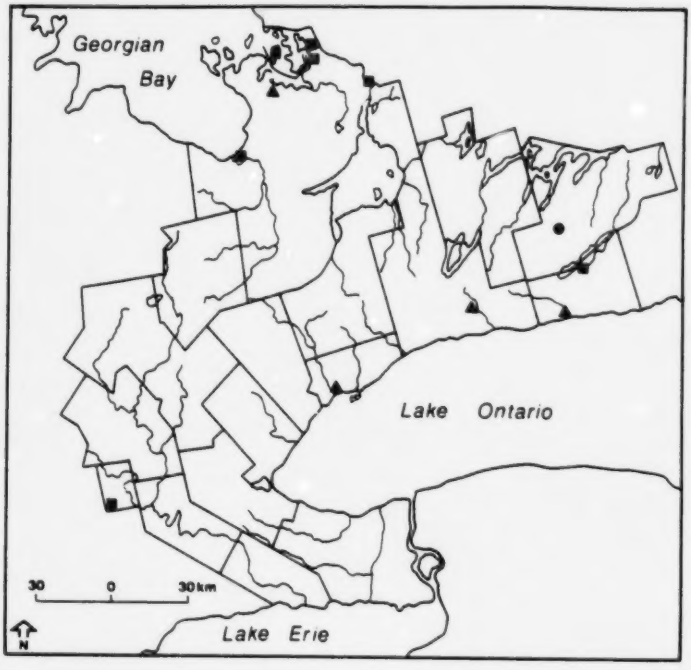
Map 18. RINGNECK SNAKE

Diadophis punctatus

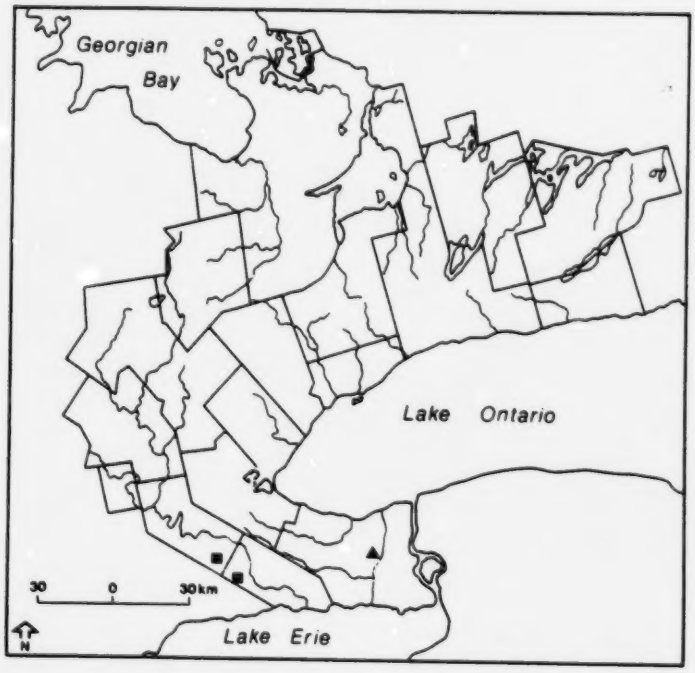
Uncommon and Widespread in Central Region



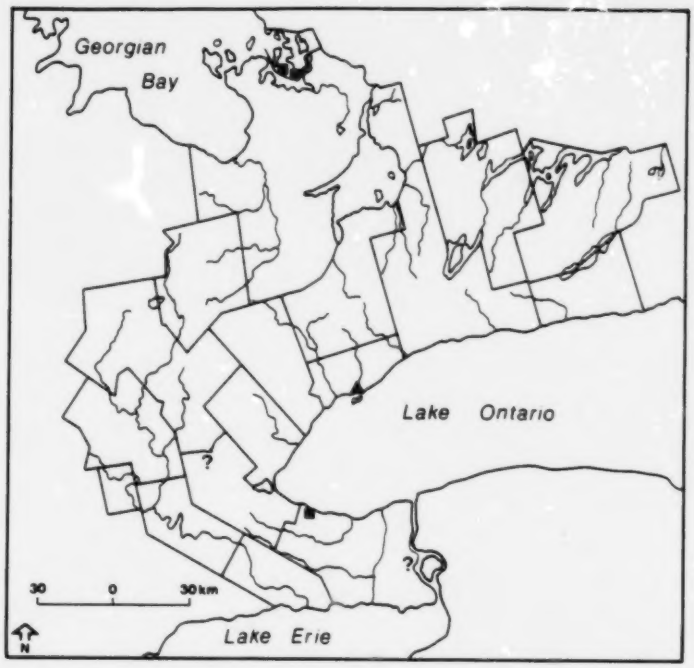
Map 19. EASTERN HOGNOSE SNAKE
Heterodon platyrhinos
Rare and Local in Central Region



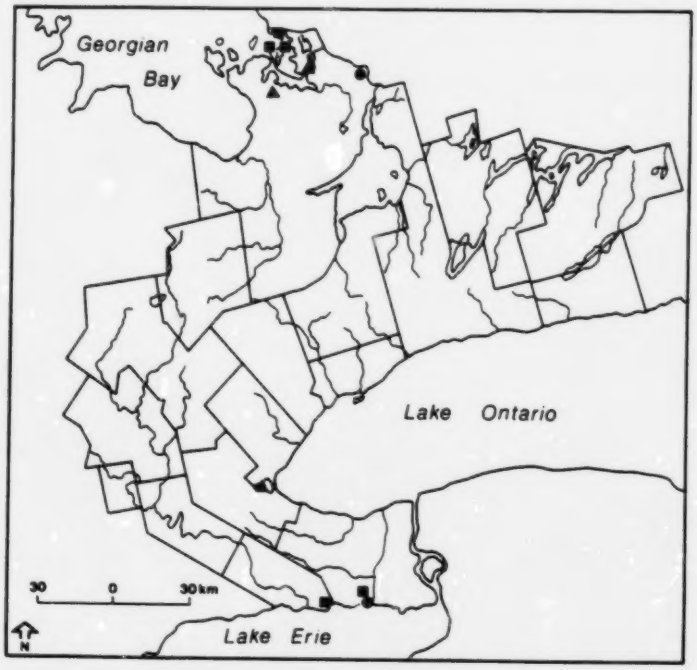
Map 20. RAT SNAKE
Elaphe obsoleta
Rare and Local in Central Region



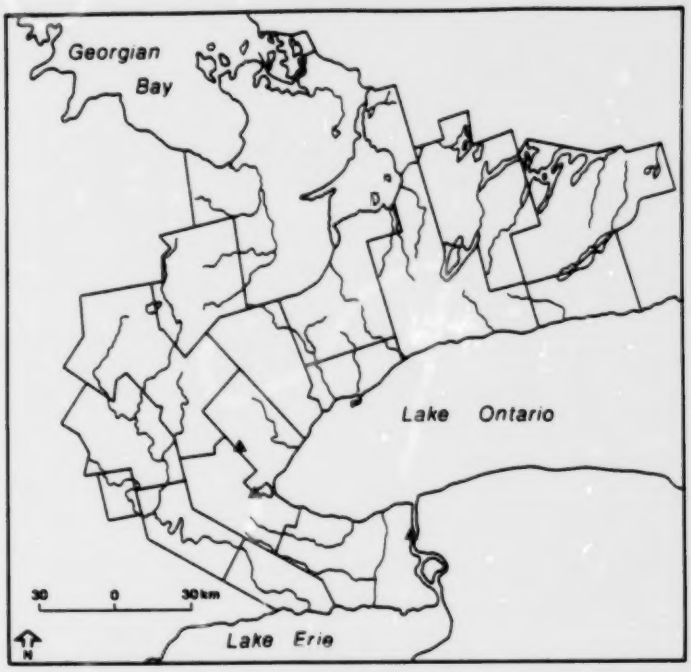
Map 21. FOX SNAKE
Elaphe vulpina
Rare and Local in Central Region



Map 22. MASSASAUGA
Sistrurus catenatus
Rare and Local in Central Region



Map 23. TIMBER RATTLESNAKE
Crotalus horridus
Extirpated in Central Region



References

Allin, A.E. 1940. The vertebrate fauna of Darlington Township, Durham County, Ontario. Transactions of the Royal Canadian Institute XXIII:83-118.

Bishop, S.C. 1943. Handbook of Salamanders. Comstock Publ. Co. Inc., Ithaca, New York. 555 pp.

Black, R.D. 1934. Charles Fothergill's notes on the natural history of eastern Canada, 1816-1837. Transactions of the Royal Canadian Institute No. 43 XX(1):141-168.

Brooks, R. 1987. (pers. comm.) Department of Zoology, University of Guelph, Ontario.

Brown, J.R. 1928. The herpetology of Hamilton, Ontario, and district. Canadian Field-Naturalist 42(5):125-127.

Campbell, C.A. 1973. A survey of the herpetofauna of Bronte Creek Provincial Park. Unpublished M.S. Ministry of Natural Resources.

Campbell, C.A. 1976. Amphibians and reptiles of the Niagara Escarpment planning area. Unpublished M.S., Niagara Escarpment Commission, Georgetown.

Campbell, C.A. 1976. Amphibians and Reptiles of the Credit River Valley Watershed. Ecologistics Ltd.

Campbell, C.A. and G.R. Donaldson. 1980. A status report for the Eastern Spiny Softshell Turtle *Trionyx spiniferus spiniferus* in Canada. C.O.S.E.W.I.C. report, unpublished, 50 pp.

Conant, R. 1975. A Field Guide to Reptile and Amphibians of Eastern and Central North America. Houghton Mifflin Company. 429 pp.

Cook, F.R. 1984. Introduction to Canadian Amphibians and Reptiles. National Museum of Canada, Ottawa. 200 pp.

Coulson, D.P. 1984. *Thamnophis butleri* new to Wellington County. Ontario Field Biologist 38:44.

Coulson, D.P. 1987. (pers. comm.) Assistant District Biologist, Cambridge District, Ontario Ministry of Natural Resources.

Crins, W.J. 1984. (pers. comm.) Erindale College, University of Toronto.

Dunn, E.R. 1926. The Salamanders of the family Plethodontidae. Smith College Anni. Pub. 441 pp.

Eagles, P., W. Elrick, D. Foster, S. Muirhead, M. Steward, J. van de Hulst and C. Waterston. 1977. South Wellington Environmentally Sensitive Areas Study. Centre for Resource Development, University of Guelph. 212 pp.

Ecologistics Limited. 1976. Hamilton-Wentworth Region Environmentally Sensitive Areas Study.

Fahselt, D., P. Maycock, G. Winder and C. Campbell. 1979. The Oriskany sandstone outcrop and associated natural features, a unique occurrence in Canada. Canadian Field-Naturalist 93(1):28-40.

Francis, G.R. and C.A. Campbell. 1983. The herpetofauna of Waterloo Region, Ontario. Ontario Field Biol. 37(2):51-83.

Froom, B. 1972. The snakes of Canada. McClelland and Stewart Ltd. 128 pp.

Galbraith, D.M. 1987. (pers. comm.) Dept. of Biology. Queen's University, Kingston (Doctoral Student).

Green, D.M. 1983. The status of *Bufo fowleri* (Fowler's Toad) in Canada. C.O.S.E.W.I.C. report. 31 pp.

Johnson, B. 1982. Amphibians and reptiles in Metropolitan Toronto, 1982 Inventory and Guide. Toronto Field Naturalists. 55 pp.

Judd, W.W. 1957. Fowler's Toad on the Lake Erie shore. FON. Bull. Vol. 78.

LeRay, W.J. 1930. The Rattlesnake (*Sistrurus catenatus*) in Ontario. Canadian Field-Naturalist 44:201-203.

Logier, E.B.S. 1930. A faunal investigation of King Township, York County, Ontario. IV. The amphibians and reptiles of King Township. Transaction of the Royal Canadian Institute XVII:203-208.

Logier, E.B.S. and G.C. Toner. 1961. Check list of the amphibians and reptiles of Canada and Alaska. Life Science Division, Royal Ontario Museum. Contribution No. 53:23-81.

Lovisek, J. 1978. Pers. comm. to Janice Doane. Amphibians and reptiles species list for York County. Dept. of Ichthyology and Herpetology, R.O.M.

M.T.R.C.A. (Metropolitan Toronto and Region Conservation Authority). 1982. Environmentally Significant Areas Study. Pub. by M.T.R.C.A.

Norfolk Field Naturalists. 1987. The Natural Areas Inventory of the Regional Municipality of Haldimand-Norfolk. Vol. 1 and 2. Publ. by the Norfolk Field Naturalists.

Obbard, M.E. 1985a. A status report for the Wood Turtle (*Clemmys insculpta*) in Ontario with an overview of its status in Canada. Unpublished M.S.

Obbard, M.E. 1985b. Can we safely harvest snapping turtles in Ontario? Canadian Amphibian and Reptile Conservation Society Bulletin 23:1-4.

Oldham, M.J. (ed.) 1988. 1985 Ontario Herpetofaunal Summary. World Wildlife Fund, Essex Region Conservation Authority and Ontario Ministry of Natural Resources. 206 pp.

Oldham, M.J. 1982. The status of the Spotted Turtle (*Clemmys guttata*) in Canada. C.O.S.E.W.I.C. report, unpublished. 128 pp.

Oldham, M.J. and D.A. Sutherland. 1986. Ontario Herpetofaunal Summary 1984. Essex Region Conservation Authority and World Wildlife Fund. 214 pp.

O.R.C.A. (Otonabee Region Conservation Authority). 1980. Emily (s.e. corner), Ennismore, Smith, North and South Monaghan and Otonabee Townships Environmentally Sensitive Areas Study. 159 pp. Publ. by O.R.C.A.

Palermo, V. 1969. Reptiles and amphibians of Peel County. Canadian Amphibian and Reptile Conservation Society Bulletin 7(5):1-4.

Plourde, S.A. and E.L. Szepesi. 1987. Records of the Herpetofauna in Central Region. Unpublished M.S., on file Central Region, Parks & Recreational Areas Section, O.M.N.R.

Royal Ontario Museum. 1987. Records of Herpetofauna in Ontario. Dept. of Icthyology and Herpetology files.

Sandilands, A.P. 1984. Annotated Checklist of the Vascular Plants and Vertebrates of Luther Marsh, Ontario. Ontario Field Biologist, Special Publication No. 2. 134 pp.

Scallen, D. 1983. Notes on the reptiles and amphibians of the North Halton and adjacent Peel County area. Canadian Amphibian and Reptile Conservation Society Bulletin 21(1):1-5.

Smith, S.L. 1984. Status report on the reptile and amphibian species of the Wye Marsh and vicinity. Unpublished M.S., 10 pp.

Strickland, D. and R.J. Rutter. 1978. Reptiles and Amphibians of Algonquin Provincial Park. Publ. by O.M.N.R., Algonquin Provincial Park.

Warren, A.E. 1948. The fauna of the Royal Botanical Gardens, Hamilton, Ontario. Canadian Field-Naturalist 64:130-134.

Weller, W.F. 1985. The status of *Ambystoma jeffersonianum* (Green), Jefferson Salamander in Canada. C.O.S.E.W.I.C. report, unpublished, 39 pp.

Williams, J.B. 1913. Reptiles. pp. 238-241. in Faull, J.H., The Natural History of the Toronto Region. The Royal Canadian Institute.

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